Application/Control No.: 10/733,825
Response mailed April 20, 2005
Reply to Office Action of July 20, 2005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (New) An apparatus for use in measuring fluid levels in a container by determining the point where an upper fluid contacts a gas or where various stratified fluids contact each other comprising:

an exposed sensor head positioned externally from the container;

a sensor rod attached to the sensor head, the rod being comprised of a plurality of generally equal width rod sections, the rod sections having an outer surface, the rod sections adapted to be connected together, the outer surface of the rod sections being in contact with either the upper fluid, the various stratified fluids, or the gas;

wherein at least one rod section is longitudinally curved.

28. (New) An apparatus for use in measuring fluid levels in a container by determining the point where an upper fluid contacts a gas or where various stratified fluids contact each other comprising:

an exposed sensor head positioned externally from the container;

a sensor rod attached to the sensor head, the rod being comprised of a plurality of generally equal width rod sections, the rod sections having an outer surface, the rod sections adapted to be connected together, the outer surface of the rod sections being in contact with either the upper fluid, the various stratified fluids, or the gas;

a tube surrounding the rod, the tube having an inner surface, the tube being comprises of a plurality of tube sections, the tube sections adapted to be connected together;

a plurality of circumferentially and longitudinally spaced slots in the tube;

wherein at least one tube section is longitudinally curved.

29. (New) An apparatus for use in measuring fluid levels in a container by determining the point where an upper fluid contacts a gas or where various stratified fluids contact each other comprising:

an exposed microwave transceiver sensor head positioned externally from the container;

a head flange attached to the head and sandwiched between the head and the container, the head flange adapted to be connected to a corresponding container

flange attached to the container, wherein the head and the rod sections may be removed from the container without removing the head flange;

a tamper-proof restraint attached to the head flange, wherein the tamper-proof restraint must be removed before the head can be removed from the head flange;

a waveguide sensor rod attached to the head, the rod being comprised of a plurality of generally equal width rod sections, the rod sections having an outer surface wherein at least a portion of the outer surface is hexagonal, the outer surface of the rod sections being in contact with either the upper fluid, the various stratified fluids, or the gas, the rod sections adapted to be screwed together, the rod has a plurality of spaced radial notches;

a gauge tube surrounding the rod, the tube having an inside surface, the tube being comprised of a plurality of gauge tube sections, the tube sections having coupling flanges which are adapted to be connected together with a plurality of fasteners;

a plurality of circumferentially and longitudinally spaced slots in the tube, the slots positioned so as to allow fluid equalization within the tube;

a plurality of spacers attached to the notches in the rod, the plurality of spacers adapted to generally radially center the rod within the tube, the notches adapted to prevent the spacers from longitudinally moving along the rod, the spacers having a plurality of radial extensions, the radial extensions having a width wider than the width of the slots in the tube whereby the radial extensions do not penetrate the slots in the tube;

wherein at least one rod section and at least one tube section are longitudinally curved.